

Main branches long, nearly bare of secondary branches; joints longer than in the type, nodes not constricted.

Habit quite different from the type, but otherwise similar. Found at Gloucester, Mass., and at Long Point, N. J., at which latter locality it is connected with the type by intermediate forms.

MALDEN, MASSACHUSETTS.

EXPLANATION OF PLATE 36. — *Cladophora arcta*: fig. 1, part of filament with descending rhizoids. *C. Hystrix*: fig. 2, tip of filament. *C. spinescens*: fig. 3, filament with recurved branch. *C. albida*: fig. 4. *C. Rudolphiana*: fig. 5. *C. glaucescens*: fig. 6. *C. flexuosa*: fig. 7. *C. gracilis*: fig. 8. *C. hirta*: fig. 9. *C. refracta*: fig. 10. *C. expansa*: fig. 11. *C. fracta*: fig. 12. *C. rupestris*: fig. 13. *C. Hutchinsiae*: fig. 14. *C. laetevirens*: fig. 15.

THE BLOOMING OF HEPATICAS.

HARRIET A. NYE.

THE question which of our early spring flowers is entitled to the honor of leading the floral procession is one which has been frequently discussed in various parts of New England. I am not aware, however, that there have been printed records regarding the actual dates at which the Hepatica and other early flowers bloom in central Maine. I submit, therefore, the following memoranda for comparison with the notes of other observers interested in the first appearance each year of these fore-runners of spring.

There is upon our farm a small, sunny opening, somewhat sheltered upon the north and west by woods. It is overgrown by scattered sumachs and blackberries and throughout the season yields numerous treasures to the botanist. In early spring it is a veritable flower garden and it is here that we find our earliest Hepaticas and Erythroniums. We are obliged, however, to go some distance from home for Arbutus.

The first spring flowers to greet us in 1893 were the Hepaticas, in full bloom April 19. I fail to find dates recorded in the year 1894 but in that year both the Hepatica and the Arbutus were rivaled in earliness by a dainty flower much less familiar because quite rare. While searching for Arbutus by the Messalonskee in Waterville the latter part of April, I unexpectedly came upon a few clusters of delicately fragrant whitish flowers the like of which I had never seen before nor have I since. It was plainly a member of the numerous and puzzling order Compositae but the absence of leaves baffled all

attempts at identification. Several weeks elapsed before I learned that it was the Sweet Coltsfoot, *Petasites palmata*. I found no Arbutus that day,—it was too early for them,—but I was satisfied.

The following year, 1895, the frail little Bloodroots were the harbingers of spring, blooming upon a lawn in Waterville, April 18. Hepaticas, however, were in full bloom by the roadside the following day, April 19. I heard of others finding Arbutus as early as April 18, but did not find them myself until April 28.

In 1896 Hepaticas bloomed April 21, followed two days later by Arbutus and by Yellow Erythroniums on the 24th.

In 1897 Hepatica buds were secured on the 12th of April, which bloomed in the house on the 15th. They were found in bloom out-of-doors April 19.

In 1898 Hepaticas bloomed out-of-doors on Easter, April 10. I also had Erythroniums in bloom April 13 of that year.

April 15 was the date on which Hepaticas were first found in bloom in 1899. By the 27th of the month Hepaticas and Erythroniums were passing their prime, and Trilliums, White Violets and Strawberries were in bloom.

In 1900 Hepatica buds gathered April 6, bloomed in the house April 10, while they were in full bloom in the open April 19, closely followed by Erythroniums on the 20th.

Last year, 1901, Hepaticas were in full bloom on the 16th of April, while this year they have broken the record by appearing in March. Clusters of buds removed to the house March 22 bloomed on the 26th, and were in prime condition upon our early Easter, March 30. While it must be admitted that these were 'forced,' yet large, magnificent ones, as fine as any I ever saw, were gathered in the field on April 2. Arbutus buds, very small indeed, yet showing signs of growth, were gathered April 1 and placed in water. To-day, April 5, some of them are bursting into bloom.

FAIRFIELD CENTER, MAINE.

TWO MORE RARE PLANTS FROM LAKE ST. JOHN, QUEBEC.—It was my good fortune last August to find a specimen of *Carex Katahdinensis*, Fernald, at "The Grand Discharge" or main outlet of Lake St. John. This, I believe, is the first time this new species has been found, aside from the original station at Mt. Katahdin